

## What is dengue fever?

Dengue (pronounced “DENG-ee”) fever is caused by infection with any one of four strains of the dengue fever virus. Dengue hemorrhagic fever (DHF) is a more severe form of illness that can occur in persons who have been infected by one strain of dengue fever virus and are later infected by another strain.

## Who gets dengue fever?

Any person who is bitten by an infected mosquito can get dengue fever, but dengue fever occurs more often in infants and children. The virus that causes dengue fever/DHF is not commonly transmitted by mosquitoes in the U.S., so, most dengue virus infections occur in persons that have traveled to, or are visiting from, countries where dengue fever is common.

## How is the dengue fever virus spread?

People get dengue fever by being bitten by infected mosquitoes. The disease is not spread from person to person. Mosquitoes become infected by biting humans who are actively ill with the disease. In Virginia, the only species of mosquito that can transmit the dengue fever virus is the Asian tiger mosquito (*Aedes albopictus*). Asian tiger mosquitoes are one of the most common nuisance species in Virginia.

## What are the symptoms of dengue fever?

Infection with dengue virus may cause no symptoms, or a mild “flu-like” illness, or a more severe illness that can include high fever (up to 105°F), severe headache, eye pain, muscle and joint pain, and a rash. Nausea, vomiting, and abdominal pain may occur. Minor bleeding, such as from the nose or gums, may also occur. The illness may last 5-7 days and recovery is usually complete by 7-10 days, but fatigue and depression may last for longer. Death from dengue fever is rare.

DHF starts out like dengue fever but becomes a much more severe illness, with bruising and bleeding from multiple sites (e.g., intestines) which may lead to dengue shock syndrome. Dengue shock syndrome is life-threatening due to the loss of fluid. However, with good medical care, death occurs in less than 1% of cases. Patients who survive DHF usually recover without long-term disability.

## How soon after exposure do symptoms appear?

Signs and symptoms occur from 3 to 14 days after infection, but usually within 4 to 7 days.

## How is dengue fever diagnosed?

Diagnosis of dengue fever takes into account travel to places where dengue is endemic, symptoms that are characteristic of dengue, blood-work that indicates a low blood platelet count, and dengue positive blood test results

**Do people who have dengue fever need to be excluded from the public?**

Although rest is recommended, people who are ill with the dengue fever virus do not need to be excluded from others. However, to break the transmission cycle, persons who are ill should try to avoid being bitten by mosquitoes during their first five days of illness.

**What is the treatment for dengue fever?**

There is no specific medication for treatment of a dengue infection. People who have dengue fever should use pain relievers with acetaminophen (e.g., Tylenol) and avoid those containing aspirin or other non-steroidal anti-inflammatory drugs (NSAIDs) and consult a physician. They also should rest, and drink plenty of fluids. Patients who subsequently develop symptoms such as severe abdominal pain, prolonged vomiting, excessive bleeding, a tendency to bruise easily, and mental status changes (e.g., drowsiness or irritability) have signs of DHF and should seek medical help immediately.

As with dengue fever, there is no specific medication for DHF. Hospitalization may be necessary to provide fluid replacement. Blood and/or platelet transfusion may rarely be needed.

**How can dengue fever/DHF be prevented?**

There is no vaccine that protects against the dengue virus. If possible, travelers should avoid areas with ongoing epidemics. Information on outbreaks is available from the Centers for Disease Control and Prevention (<http://www.cdc.gov/dengue/traveloutbreaks/index.html>) and the World Health Organization ([http://www.who.int/csr/don/archive/disease/dengue\\_fever/en/](http://www.who.int/csr/don/archive/disease/dengue_fever/en/)). The mosquito species that transmit dengue feed primarily during daylight hours, but may enter homes during the day and bite day and night indoors. Travelers to areas where dengue fever virus is common should protect themselves from mosquito bites by using repellents, wearing protective clothing, and using mosquito nets when rooms do not have screens.

**How can I get more information about dengue fever?**

- If you have concerns about dengue fever, contact your healthcare provider.
- Call your local health department. A directory of local health departments is located at <http://www.vdh.virginia.gov/local-health-districts/>.
- Visit the Centers for Disease Control and Prevention website at <http://www.cdc.gov/Dengue/>

July 2014